



## Arboricultural Implication Assessment (AIA)

In accordance with BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations. An Arboricultural Implication Assessment derived from the Tree Survey and Report ref 220910

Address/ Project	Project ERB British Museum Great Russell Street, London WC1B 3DG
Ref No	220910 AIA
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Date instructed:	October 2022
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Documents referenced:	Tree Survey Report and Tree Constraints Plan Ref. 220910 Survey Existing Plan Ref. (S)10771-WW-ER-00-DR-A-1110 Survey ERB - Level 00 Plan (dated 14.10.22) Demolition Plan Ref. (S)10771-WW-ER-01-DR-A-1611 Demolition ERB - Level 01 Plan (dated 14.10.22) Proposed Plan Ref. (S)10771-WW-ER-01-DR-A-2111 Proposed ESH - Level 01 Plan (dated 14.10.22)
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Date completed:	December 2022
Revision Date:	April 2023

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# 1. Introduction

## 1.1 Aims of this Assessment

The aim of this Arboricultural Implication Assessment (AIA) is to consider how the proposed development and the associated trees will co-exist and interact in the present and the future. The AIA addresses and considers issues such as statutory constraints, above and below constraints, alternatives to tree loss and infrastructure requirements. It also considers such issues as end use of space, the need to prune or remove trees due to excessive shade or encroachment and whether it is possible to plant new trees.

## 1.2 Aspects not dealt with within this Assessment

Please also refer to Appendix 1.

The AIA does not include an Arboricultural Method Statement (AMS).

This AIA does not consider issues relating to boundary lines and the proposed structures. It may be that such issues effect the ownership of a tree/s, but the assessment does not deal with this issue. (Issues of boundary line dispute and/or ownership of vegetation may require a land registry search and reference to local records. (This can be conducted if so requested).

# 2. Implications of Proposed Development on Tree Population

## 2.1 Description of Proposed Development

From our understanding, the proposed works are the demolition of existing building and two storey structures on East Road (to the rear of 9-11 Montague Street and 43 Russell Square) and erection of new two storey building, plus basement and associated works to provide plant and welfare accommodation ancillary to the Museum.

This will involve the following stages:

1. Demolition of an existing storage/work shop building including existing proprietary external ramps and railing to be removed.
2. Demolition of recycling stores. (All demolition refers to the Green huts and existing ERB). (Please see associated TPP).
3. Construction of an engineering support hub building including below ground level sprinkler tank and pump room.

## 2.2 Considerations of those trees that will be affected by the proposed demolition and build works

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
<p><b>Tree no. + Species + Cat.:</b> These are details taken directly from the preceding Survey report, that assigns a reference number, identifies the species and categorises them as of BS5837 and as detailed in the preceding report.</p>							
<p><b>Removal due to:</b> This identifies whether the tree is to be removed and if so whether this is due to the proposed works or to the current condition of the tree.</p>							
<p><b>Mitigation required:</b> This identifies whether mitigation is required in relation to the tree canopy or Root Protection Area (RPA) with relation to the proposed works</p>							
<p><b>Details of how proposed affects tree and outline of mitigation required:</b> This gives a brief outline how proposed works will need to be considered with regards to mitigating damage to the root system or to the visible above ground aspects of the tree.</p>							
G2	Elder x2, Cherry + Sorbus	C3*	N/A	N/A	✓	N/A	<ol style="list-style-type: none"> <li>1. Crown to the north-east abuts proposed demolition of the existing building.               <ol style="list-style-type: none"> <li>1.1 Reduce crowns to the north by up to 1m in line with boundary wall to allow proposed works to proceed. <b>Note:</b> This is a third-party tree, liaison and permission required from owner if access and climbing of tree required to carry out pruning.</li> </ol> </li> <li>2. Footprint of proposed demolition of the existing building abuts RPA to the north.               <ol style="list-style-type: none"> <li>2.1 No mitigation required due to an investigation trial pit (Ref. 10) has been previously excavated adjacent to the boundary wall, which revealed minor roots up to 5mm in diameter with a more substantial root of approx. 20mm diameter directly below the footing. Roots visually identified to be from the a Elder tree (G2). Ful details of findings within site monitoring report ref. British Museum_ monitoring_11.08.22.</li> </ol> </li> </ol>
T16	London Plane	A1	N/A	N/A	N/A	N/A	<ol style="list-style-type: none"> <li>1. Footprint of proposed demolition of the existing building and construction of the proposed building abuts the modified RPA to the north, therefore no mitigation is required.               <ol style="list-style-type: none"> <li>1.1 No mitigation required due to an investigation trial pit has been previously excavated adjacent to the boundary wall, which revealed minor roots up to 5mm in diameter with a more substantial root of approx. 20mm diameter directly below the footing. Roots visually identified to be from the a Elder tree (G2).</li> </ol> </li> </ol>
T17	London Plane	A1	N/A	N/A	N/A	N/A	No Mitigation required.

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T21	Prunus sp.	C1	N/A	N/A	✓	✓	<p>1. Crown and RPA to the south abuts proposed demolition of the existing building.</p> <p>1.1 Reduce crown to the north by up to 0.5m in line with boundary wall to allow proposed works to proceed. <b>Note:</b> This is a third-party tree, liaison and permission required from owner if access and climbing of tree required to carry out pruning.</p> <p>1.2 Machinery used for demolition of existing build to be of smallest dimensions suitable for the operation; and located within footprint of structure, demolishing inwards away from the tree using 'top down pull-back method'.</p> <p>1.3 Where possible existing foundations located within RPA are to be retained in-situ to remove requirement for excavations. If not possible foundations to be removed under Arboricultural Supervision.</p>
T22	Horse Chestnut	U	n/a	n/a	n/a	n/a	<p>This tree has been historically monolithed. The consequent re growth is very poor. This tree has less than 10 years life. However, it is suggested to retain for its potential wildlife habitat.</p> <p>Given the extent of the RPA this would generally require suitable mitigation. However, it is considered that the monolith work and the distinct lack of regrowth and die back of the existent regrowth would mean that the root system has already considerably re-trenched. The works as undertaken would not interfere with the potential structural root system.</p> <p>It is considered that the tree will probably be required to felled within the next 10 years.</p> <p>Protective fencing is recommended to ensure the main stem can be retained for as long as possible for the potential wildlife habitat.</p>

## 2.3 Summary of effects on the Trees from Proposed Layout

Consideration	Number of trees
Trees, groups and hedges to be retained	4no. trees and 1no. group
Category A trees, groups and hedges to be removed	0 trees
Category B trees, groups and hedges to be removed	0 trees
Category C trees, groups and hedges and groups to be removed	0 trees
Category U trees, groups and hedges to be removed	0 trees

No trees will be removed. The proposed development will not significantly impact on the local tree landscape.

## 2.4 Summary of Mitigation required

Below ground mitigation for works will be required in relation to T21 will involve; either existing foundation to be retained in-situ. Or for foundations to be removed under Arboricultural Supervision.

Above ground mitigation includes minor pruning to allow for proposed works to proceed.

## 2.5 Infrastructure including trenching requirements

From my understanding all infrastructure requirements including trenching will either utilise existing installations or new installations will be installed to the west of the new proposed ERB. This will not interfere with RPAs of retained trees.

Where possible existing utility services should be utilised for the new development. If new trenches are required for new utility service installations they are to be located outside of the RPA's of retained trees. There appears to be sufficient space available at this site to locate new trenches remote from retained trees.

If the installation of new trenches are required they must be conducted in accordance with National Joint Utilities Group (2007) Publication Volume 4: Issue 2 Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.

If trenching cannot be avoided within the RPA of a retained tree Arboricultural advice must be sought to ensure that minimum impact is caused to the rooting area.

## 2.6 Installation of Protective Barriers and Ground Protection.

It will be necessary to install protective barriers to prevent incursion within the RPAs of retained trees during the build process. The protective barriers will remain in-situ throughout the main construction and only removed on completion of the build. The specification of the Protective Barriers will be sufficiently robust to prevent access into the Construction Exclusion Zones and in accordance with BS5837:2012.

## 2.7 Consideration of Ecological concerns

No ecological concerns have been raised in relation to the works or the trees on the site and none were noted at the time of the survey. Ecological considerations that involve EU Habitats Directive will overrule any Arboricultural recommendations as given within this report.

### 3. Change in Site Use and Tree Management Implications

#### 3.1 The Implications of the Growth Trees within the next 10 years

Tree no.	Species	Details of required works	Timing of works
G2	Elder x2, Cherry + Sorbus	Install gutter guards to prevent system blockage, that may be caused by fallen leaves.  Crown reduce north-east of the crown.	At time of guttering installation.  Crown reduce – every 3 - 5 years
T21	Prunus sp.	Install gutter guards to prevent system blockage, that may be caused by fallen leaves.  Crown reduce south of the crown.	At time of guttering installation.  Crown reduce – every 3 - 5 years

#### 3.2 Potential root damage to Infrastructure

This report does not consider the implications of trees, whether retained or removed, indirectly or directly on the proposed development. New structures must be so designed to avoid potential movement as a result of the influence of trees. This report does not address issues of Subsidence or Heave in relation to the build/ buildings. This is considered the remit of the Structural Engineer. We are happy to comment as appropriate with sufficient information, if required and as of a separate report

### 4. Conclusions

#### 4.1 Further considerations

An Arboricultural Method Statement (AMS) has been compiled along with a Tree Protection Plan (TPP).

## Appendix 1: Limitations of Arboricultural Implication Assessment

### Limitations of the Arboricultural Implication Assessment

Please also refer to sections 1.2 and 1.3 at the beginning of this report.

- This Assessment is based upon information obtained from the Tree Survey.
- All dimensions and measurements are based upon the previous data collected from the survey and from the design drawings as provided.
- This Assessment considers the possible implications to proposed future built structures. Suggestions may be given outlining alternative proposals for building layout. Such suggestions must be considered by the Architect/ Designer/or Engineer before implementing any of the suggestions.

### Data on which the Assessment is based

- Validity, accuracy and findings of the report will directly relate to the accuracy of information provided at the time of the survey.
- No checking of independent data provided will be undertaken. This is particularly relevant with regards to scaled maps and drawings provided to Writtle Forest Ltd.

### Validation of the Assessment

- The Assessment considerations/ findings in this tree report are valid for one year.
- Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken.
- If there are any alterations to either the property or soil levels, or if tree works are carried out, it is recommended that a new tree survey/report is undertaken.

### Trees in relation to other Properties:

- This assessment only considers the trees in relation to the site and the proposed structures as identified.
- The Assessment only considers those trees as are relevant to the proposed structures. Comment is not made with regard to trees in relation to structures beyond the boundaries as identified, (third party property).
- Issues with regard to neighbouring property and trees on the site considered maybe relevant if new planting is considered or required.
- Damage to, or possibility of damage to, any other structure that is not referred to within the report is not considered unless otherwise specified. This includes both neighbouring structures and any other structure on the property.

### Trees in Relation to Subsidence, Heave and Direct damage

- This report does not deal with issues relating to subsidence or heave in relation to any built structures and surrounding vegetation. However, it may be prudent to consider the effects of heave on any property if trees are removed.



- Unless information relating to soils is presented or if the client has instructed the assessment to consider the type and depth of foundations, then this is not considered within the assessment.

#### Trees subject to statutory controls:

- Where trees are covered by a Tree Preservation Order or are located in a Conservation Area it will be necessary to consult the local authority before any tree works, other than certain exemptions, can be carried out.
- The works specified above are necessary for reasonable management and should be acceptable to the local authority. However, tree owners should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.

#### Trees are subject to changes outside human control:

- Trees are living organisms subject to changes outside man's control.
- Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of man's influence and other factors may be involved.

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